This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.







UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

STAIRS IN S		- WARD IT OR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		9829
09/702,493	10/31/2000	Peter W. Estelle	NOR-937	9027
7590 12/06/2001 C Richard Eby Wood Herron & Evans LLP			EXAMINER	
			KEASEL	KEASEL, ERIC S
441 Vine Stree	00 Carew Tower 1 Vine Street		ART UNIT	PAPER NUMBER
Cincinnati, OH 45202-2917			3754	
			DATE MAILED: 12/06/2001	

Please find below and/or attached an Office communication concerning this application or proceeding.

		Applicant(e)					
	Application No.	Applicant(s)					
	09/702,493	ESTELLE					
Office Action Summary	Examiner	Art Unit					
	Eric Keasel	3754					
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a repl - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statute - Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b). Status	36(a). In no event, however, may y within the statutory minimum of will apply and will expire SIX (6) No	y a reply be timely filed thirty (30) days will be considered timely. MONTHS from the mailing date of this comme ABANDONED (35 U.S.C. § 133).	nunication.				
.1) Responsive to communication(s) filed on 31	<u>October 2000</u> .						
20) 11110 000011 10 1 17 11	nis action is non-final.						
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims							
4) Claim(s) 1-23 is/are pending in the application.							
4a) Of the above claim(s) is/are withdra	wn from consideration.						
5) Claim(s) is/are allowed.							
6)☐ Claim(s) is/are rejected.							
7) Claim(s) is/are objected to.							
8) Claim(s) 1-23 are subject to restriction and/or election requirement.							
Application Papers							
9) The specification is objected to by the Examiner.							
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.							
If approved, corrected drawings are required in reply to this Office action.							
12) The oath or declaration is objected to by the Examiner.							
Priority under 35 U.S.C. §§ 119 and 120		O C 440(a) (d) az (5)					
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a) ☐ All b) ☐ Some * c) ☐ None of:							
1. Certified copies of the priority documents have been received.							
2. Certified copies of the priority documents have been received in Application No.							
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.							
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
a) The translation of the foreign language p 15) Acknowledgment is made of a claim for dome	rovisional application ha	as been received.					
Attachment(s)							
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notic	view Summary (PTO-413) Paper No(s ce of Informal Patent Application (PTO r:	.) -152)				

Application/Control Number: 09/702,493

Art Unit: 3754

DETAILED ACTION

Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claim 12, drawn to a pilot-operated pneumatic valve, classified in class 251, subclass 30.01.
 - II. Claims 1-4 and 13-23, drawn to a solenoid-operated valve with various controls, classified in class 251, subclass 129.05.
- III. Claims 5-11, drawn to a driver circuit, classified in class 700, subclass 282.

 The inventions are distinct, each from the other because of the following reasons:
- 2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the subcombination requires the solenoid (presumably the armature) to move the dispensing valve whereas the combination requires a piston to move the dispensing valve. The subcombination has separate utility such as a solenoid-actuated valve that is not a pilot valve for a piston-operated main valve.

Application/Control Number: 09/702,493 Page 3

Art Unit: 3754

3. Inventions II and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the subcombination drive circuit requires the power supply and power switch to be part of the drive circuit whereas the combination of the solenoid-actuated valve does not require these particulars. The subcombination has separate utility such as a drive circuit for a solenoid-actuated switch or relay.

- 4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and because these inventions are distinct for the reasons given above and the search required for any group is not required for the other groups, and because these inventions have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
- 5. Should applicant elect invention II above, this application further contains claims directed to the following patentably distinct species of the claimed invention:
 - IIA. A fluid dispenser valve with a drive circuit having a time variable component having a duration varying as an inverse function of a magnitude of the output voltage of the power supply.

Application/Control Number: 09/702,493

Art Unit: 3754

IIB. A fluid dispenser valve with a drive circuit wherein the time required to move the armature between two positions varying in a first non-linear relationship and the output signal having a variable component with a time duration varying in a second non-linear relationship.

IIB. A fluid dispenser valve with a drive circuit with the PWM.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, there do not appear to be generic claims.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

Application/Control Number: 09/702,493

Art Unit: 3754

examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry C. Yuen can be reached on (703) 308-1946. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3588 for regular communications and (703) 305-3588 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

EK 4 SECOI

December 4, 2001

KENNETH BOMBERG